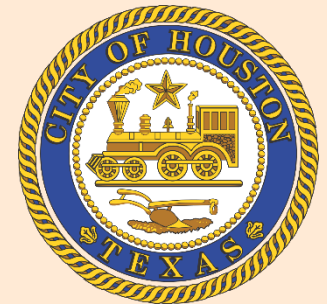


Proposed Sunnyside Landfill Solar Farm Lease Agreement

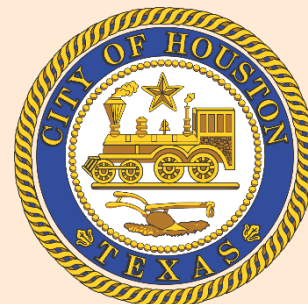
Lara Cottingham, Chief Sustainability Officer, City of Houston
Paul Curran, Managing Director, BQ Energy

Quality of Life Committee – October 28, 2020



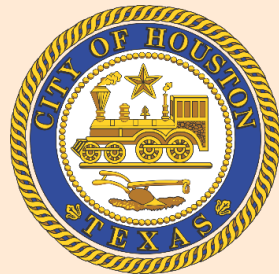
Sunnyside Landfill Solar Project

- Winner of the 2019 Reinventing Cities Competition
- Transform the former 240-acre landfill in Sunnyside into a multi-component asset for the community
- Largest urban solar installation in US = \$70M private sector investment
- 120 Million pounds of CO2 off-set per year
- Climate Action Plan and Complete Communities top priority
- Target construction and commercial operation date 2022



Surface Lease Details

- Lease term – maximum 30 years
 - Development and Construction Period (up to the Commercial Operation Date)
 - Operation Period (twenty years with two five-year extensions possible)
 - Decommissioning Period (one-year max).
- City retains ownership of property and liability of the subsurface landfill material
- Tenant will complete permitting for and restoration of the landfill cover; responsible for maintaining the restored cover within the leased space, including all landscaping, mowing, reseeding, etc.
- Rent - \$1.00 per year to the City
- City Council approval (2021) of development agreement required before construction can begin



BQ Energy

- World-wide experience in project development and a leader in developing renewable energy on brownfields and landfills since 2002.
- Developed medium-sized wind energy projects (5-50 MW) and utility scale solar PV (1-100 MW).
- Develop, Build, Own & Operate Projects in many different locations.
- Sell power to owners, third parties, or transmission market.
- Existing financial relationships with KeyBank, M&T Bank, NY Green Bank, and other financial relationships.

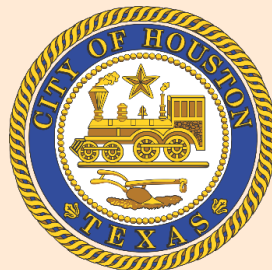
Wolfe Energy

- Co-Developed a 7 MW solar array on a superfund site and developed and manage three community-owned solar arrays
- Houston-based community organizer and educator



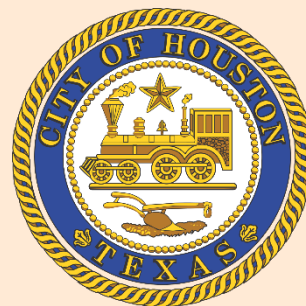
Landfill Solar Vs. Other Land-Use Options

- Solar farms are one of the safest and most productive ways to reuse landfills
- Minimally invasive to build, silent to run, and produce no harmful byproducts
- Solar farm creates a productive use while restricting access to keep landfill area safe and secure
- Long-term agreements ensure decades of safe and stable economic benefits



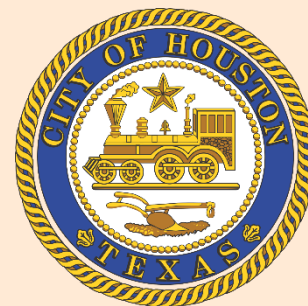
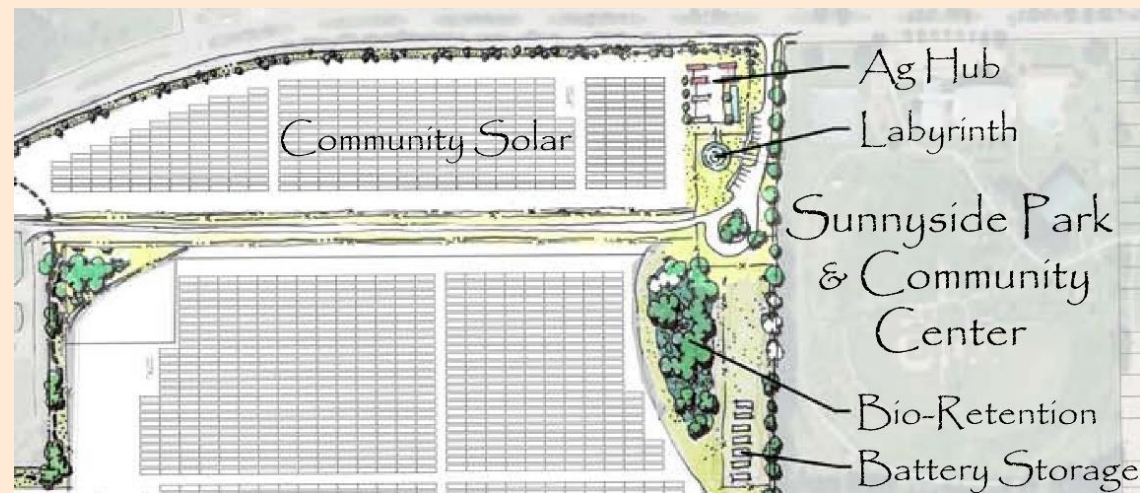
Utility Scale Solar Farm

- ~ 50 MW solar array installed on the northern section of the landfill
- Produce enough electricity to power 5,000 homes annually
- About \$70 Million in capital cost
- Construction in 2022
- Opportunities available for local contractors; training provided



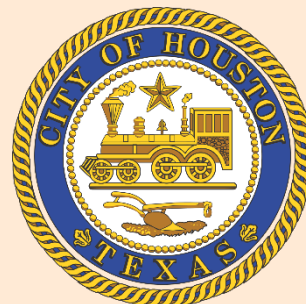
Community- Owned Solar Program

- 2 MW solar array installed on the northern section of the landfill
- Generate enough electricity to power 200 homes annually
- About \$5 Million in capital cost
- Opportunities available for local contractors; training provided
- Discount Power for qualifying residents of Sunnyside



Impact to Landfill Integrity

- Solar project will improve the landfill environmental integrity
- All surface vegetation will be restored and maintained by the Solar Farm
- Erosion control measures will be employed during construction
- Bioretention features will be included to manage run-off after construction



Progress to Date

- Completed conceptual solar design
- Started a community outreach program
- Received ERCOT Fast Track Interconnection; preparing for Full Interconnection Study
- Completed Drone Survey of Property
- Selected Golder Associates to begin assessment of TCEQ requirements for restoration
- Proposed lease for City Council approval in November



Next Steps – Permitting and Interconnection

Permitting:

- Project must conform with all Federal, State, local environmental and electrical codes.
- There will be tree chipping and some grading work on site to make the terrain appropriate for a solar array
- Public meetings will be held during the permit process to ensure appropriate communication and input.

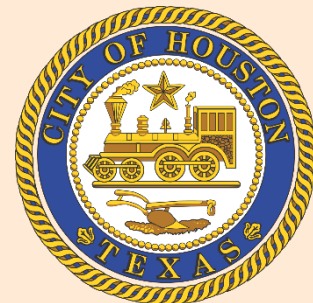
Interconnection:

- The process of interconnection with ERCOT power grid requires extensive study to ensure that under all circumstances the delivery of electric power will be done safely and reliably.
- Project will formally apply for interconnection, expending \$50K, as soon as the lease is signed.
- There are existing nearby wires owned by CenterPoint.



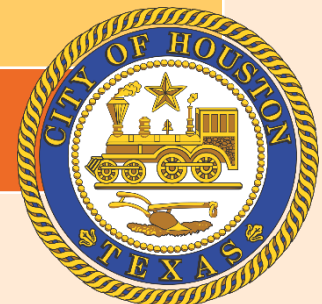
Next Steps – Power Sales

- Power will be distributed via existing wires and at no time will the reliability of area or local power delivery be impacted.
- There are a variety of commercial power sales routes that the Sunnyside Energy Solar Farm project can take including:
 - Selling to existing retail suppliers, who would then manage customers
 - Selling to larger buyers such as businesses, governments, or universities
 - Selling directly to residential customers
- Power sales activities will begin after permitting is complete.



Schedule

Milestone Task	Date
City of Houston Lease Complete	November 2020
Initial Design Complete	December 2020
Electrical Interconnection Studies Started	December 2020
Permit Applications	January 2021
Permits & Development Agreement Approved	November 2021
Power Sales Complete	December 2021
Electrical Interconnection Agreement	February 2022
Project Finance Secured	March 2022
Commercial Operation	December 2022



QUESTIONS?

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WWW.GREENHOUSTONTX.GOV

Virtual Sunnyside Energy Community Town Hall
Thursday, October 29th

REGISTER: www.solarunitedneighbors.org/sunnyside

